

Creation of a high-quality stopover habitat for migrating passerines on a remote island: A case study of good agricultural practices for tackling climate change and land-abandonment impacts on avifauna

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Antikythira is a small island (ca. 20km²) located in the southernmost point of the Ionian Sea, Greece, known to be an important stopover area for migrating passerines. Furthermore, it hosts one of the largest colonies of Eleonora's falcons (*Falco eleonora* Gén , 1839) at global level with approximately 500 breeding pairs. During the last decades, agropastoral habitats on the island have been constantly degrading, mainly due to land abandonment and overgrazing by free-ranging goats. Increased xeric conditions as a result of climate change are expected to accentuate the ongoing habitat degradation. This may incur significant impacts on the stopover pattern of passerines, including their refueling rate and stopover duration, resulting in inadequate replenishment of energy reserves that could imperil successful migration. Consequently, prey availability for the Eleonora's falcons' breeding in the area is expected to decline. In the framework of the LIFE EIClimA project (LIFE13NAT/GR/000909) we established a "refueling oasis" for staging passerines on the island of Antikythira, in order to provide a high-quality stopover site and minimize the anticipated climate change impacts. Site selection and determination of the planting design were based on preliminary surveys regarding habitat-preferences for key-species of staging passerines that are also common prey items for Eleonora's falcons. Following the creation of the "refueling oasis" surveys were carried out in order to assess its impact on habitat use patterns of staging passerines. The implemented agricultural practices are expected to secure long-term sustainability and to increase habitat resilience to climate change, thus constituting a successful case study.

Keywords: *Falco eleonora*, Antikythira island, migration, Mediterranean Sea, Sahara Desert